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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,683	06/20/2003	Erik Olson	13768.373	4994
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WORKMAN NYDEGGER/MICROSOFT 1000 EAGLE GATE TOWER 60 EAST SOUTH TEMPLE SALT LAKE CITY, UT 84111			EXAMINER WILLIAMS, JEFFERY L	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/600,683	Applicant(s) OLSON ET AL.	
	Examiner JEFFERY WILLIAMS	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 30 – 45 are pending.

All objections and rejections not set forth below have been withdrawn.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Newly added claims 30 – 45 comprise the following undisclosed recitations:

*“wherein examining the HTTP request for script constructs consists of examining only HTML elements where user input is introduced”, “finding a script construct within a particular HTML element”; “further comprising encoding user input to render the script construct inert”, “wherein the request includes a request for dynamic content in the form of an embedded link”, and “examining only the request for dynamic content in the form of the embedded link and other HTML elements where user input is introduced”. These recitations are not found by the examiner nor shown by the applicant to be supported within the applicant’s original disclosure. For example, the applicant’s original disclosure appears to show support for examining headers, queries, cookies, fields of an HTTP request, the request answered by an *HTML rendered response*. However, the*

1 original disclosure reveals no support for the applicants recitations such as “*examining*
2 *only HTML elements where user input is introduced*”. For example, the applicant’s
3 original disclosure appears to show support for aborting the processing of a request or
4 encoding a request, however, there is no support for an embodiment of “*further*
5 *comprising encoding user input to render the script construct inert*”. For example, the
6 applicant’s original disclosure appears to show support for a user clicking on an
7 embedded link which generates a request to a web server, however, there is no support
8 for recitations such as “*wherein the request includes a request for dynamic content in*
9 *the form of an embedded link*”, and “*examining only the request for dynamic content in*
10 *the form of the embedded link and other HTML elements where user input is*
11 *introduced*”.

12 13 **Drawings**

14
15 The drawings are objected to under 37 CFR 1.83(a). The drawings must show
16 every feature of the invention specified in the claims. Therefore, the features of the
17 newly added claims such as “*wherein examining the HTTP request for script constructs*
18 *consists of examining only HTML elements where user input is introduced*”, “*finding a*
19 *script construct within a particular HTML element*”; “*further comprising encoding user*
20 *input to render the script construct inert*”, “*wherein the request includes a request for*
21 *dynamic content in the form of an embedded link*”, and “*examining only the request for*
22 *dynamic content in the form of the embedded link and other HTML elements where user*

1 *input is introduced*". must be shown or the feature(s) canceled from the claim(s). The
2 examiner notes that while the applicant has originally shown the features of an HTTP
3 request, receiving an HTTP request, and examining the HTTP request, the newly added
4 recitations such as the above are found lacking within the applicant's drawings. No new
5 matter should be entered.

6 Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to
7 the Office action to avoid abandonment of the application. Any amended replacement
8 drawing sheet should include all of the figures appearing on the immediate prior version
9 of the sheet, even if only one figure is being amended. The figure or figure number of an
10 amended drawing should not be labeled as "amended." If a drawing figure is to be
11 canceled, the appropriate figure must be removed from the replacement sheet, and
12 where necessary, the remaining figures must be renumbered and appropriate changes
13 made to the brief description of the several views of the drawings for consistency.

14 Additional replacement sheets may be necessary to show the renumbering of the
15 remaining figures. Each drawing sheet submitted after the filing date of an application
16 must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"
17 pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the
18 applicant will be notified and informed of any required corrective action in the next Office
19 action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 38 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Regarding this claim, the respective parent claim already recites what is essentially storing ("maintaining") a list on a server. Furthermore, the examiner presumes claim 38 to reference the "web server" as opposed to "the server".

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 30 – 45 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

1 convey to one skilled in the relevant art that the inventor(s), at the time the application
2 was filed, had possession of the claimed invention. Applicant has not pointed out where
3 the new (or amended) claim is supported, nor does there appear to be a written
4 description of the claim limitations in the application as filed (see above objection to the
5 specification).

6
7
8 *The following is a quotation of the second paragraph of 35 U.S.C. 112:*

9 *The specification shall conclude with one or more claims particularly pointing out and distinctly*
10 *claiming the subject matter which the applicant regards as his invention.*

11
12 **Claims 30 – 45 are rejected under 35 U.S.C. 112, second paragraph, as**
13 **being indefinite for failing to particularly point out and distinctly claim the subject**
14 **matter which applicant regards as the invention.**

15 Specifically, claims 30 and 45, each comprise the recitation (or essentially
16 similar), “*examining only HTML elements where user input is introduced*”. The
17 examiner notes that these recitations render the scope of the claimed invention
18 indeterminate as it is unclear what should be interpreted as “*only HTML elements where*
19 *user input is introduced*”. While the newly added claims appear to further define HTML
20 elements as variables, query strings, URLs, and headers (ex. claim 40), the examiner
21 notes that such a definition is absent from the applicant’s original disclosure and
22 appears inconsistent with what one of ordinary skill in the art would regard to be parts of

an HTTP request (i.e. HTTP request elements). For the purpose of examination, the examiner presumes the applicant to recite "...HTTP request elements...".

Regarding claim 32, the recitation "the event" lacks antecedent basis. For the purpose of examination, the examiner presumes the applicant to recite "an event".

Regarding claim 37, the recitation "wherein the particular HTML element is an element size" appears nonsensical. The examiner notes that an element size appears to be a quality associated with an element, not an element itself.

Regarding claim 40, "error the event" lacks antecedent basis. For the purpose of examination, the examiner presumes the applicant to recite "an error event".

Depending claims are rejected by virtue of dependency.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30 – 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Razmov et al. (Razmov), "Practical Automated Filter Generation to Explicitly Enforce Implicit Input Assumptions" in view of CERT Coordination Center (CERT), "Malicious HTML Tags Embedded in Client Web Requests" and

1 **“Understanding Malicious Content Mitigation for Web Developers” in view of**
2 **Fielding et al. (Fielding), RFC 2616.**

3
4 Regarding claim 1, Razmov discloses:
5 *receiving an HTTP request at the web server, the HTTP request having been*
6 *sent by the user computer and requesting a response* (Razmov; sect. 4, 4:1 – herein
7 prior art discloses sending and receiving HTTP requests, the request being a request
8 for a response from a web server);

9 Razmov discloses a system that utilizes useful and powerful “filters” for validating
10 requests (i.e. client input) and thus providing security (Razmov, Abstract; sect. 3.2, par.
11 2). The examiner notes that the Razmov does not appear to explicitly recite that the
12 requested response from the web server is a response *that includes text and HTML*
13 *elements*.

14 Cert, however, discloses that such request validation is useful for protecting a
15 system from malicious responses from a web server that comprise dynamically
16 generated HTML pages (i.e. text and HTML elements) (Cert, pg. 1/8, “Overview”; pg.
17 2/8, “Malicious code sent...”).

18 It would have been obvious to one of ordinary skill in the art to recognize that the
19 system of Razmov was utilized for protecting clients from malicious responses from a
20 web server that *that includes text and HTML elements*. This would have been obvious
21 because one of ordinary skill in the art would have been motivated to recognize the

1 teachings of Cert as explicitly directed to by Razmov (Razmov, sect. 3.2, par. 2; pg. 11,
2 col. 1, “[4]”).

3 The combination enables:

4 *before dynamic rendering of the HTTP request, using a script module of the*
5 *server computer to examine the HTTP request for script constructs (Razmov, fig. 2;*
6 *sect. 3.2, par. 2; sect. 4) identified in an updateable list of markers of active content*
7 *stored at the web server (Razmov, sect. 3.2, par. 2; Cert, pg. 2/9, “Identifying the*
8 *Special Characters”; Razmov, sect. 4.1, par. 1, bullet 3; pg. 7, col. 2, par. 1; sect. 5.2,*
9 *par. 3;), wherein examining the HTTP request for script constructs consists of*
10 *examining only HTML elements where user input is introduced (Razmov, sect. 3.1, par.*
11 *3 – herein the client request is decomposed into input elements wherein the input*
12 *elements are examined);*

13 *finding a script construct within a particular HTML element; in response to finding*
14 *the script construct within the particular HTML element, generating an error and*
15 *aborting processing of the HTTP request (Razmov, sect. 4; sect. 4.1);*

16 The combination enables for input validation and for notifying the user of an error
17 when the input comprises a script construct. However, the examiner notes that the prior
18 art does not appear to explicitly recite *informing the user computer that the script*
19 *construct has been found in the HTTP request and requesting that the user computer*
20 *resubmit a request.*

1 Fielding discloses that error messages for invalid HTTP requests should inform
2 and be used such that a user can take corrective measures and resubmit a request
3 (Fielding, pg. 65, sect. 10.4; pg. 65, sect. 10.4.1; pg. 67, sect. 10.4.10).

4 It would have been obvious to one of ordinary skill in the art to incorporate the
5 teachings of Fielding within the error messages of the prior art combination. This would
6 have been obvious because one of ordinary skill in the art would have been motivated
7 to allow a user to learn and take proactive measures to ensure the safety of his/her
8 communications. For example, a user could be informed that his HI-IP request, which
9 was submitted by clicking on a link, was invalid or malicious and would be encouraged
10 to safely resubmit a subsequent request, such as by manually keying in the correct
11 URL.

12
13 Regarding claims 31 – 37, the combination enables:

1 *wherein the particular HTML element is an event; wherein the event is an onclick*
2 *event; wherein the particular HTML element is an expression; wherein the particular*
3 *HTML element is a value of a name/value pair; wherein the particular HTML element is*
4 *a value of a tag attribute/value pair; wherein the particular HTML element is an anchor*
5 *in an href attribute; wherein the particular HTML element is an element size (Razmov,*
6 *sect. 4; sect. 4.1, par.; Cert, pg. 1/9, "Problem Summary", par. 3; pg. 2/9, "Identifying the*
7 *Special Characters" – herein the prior art enables for all input elements to be examined*
8 *for script constructs).*

9
10 Regarding claims 38 – 41, the combination enables:
11 *maintaining, at the server, the updateable list of markers of active content;*
12 *wherein receiving the HTTP request includes receiving and examining each of: a query*
13 *string; a field of an HTTP form; and a header; wherein the HTML elements where user*
14 *input is introduced include at least one of: form variables; query string variables; URLs*
15 *with key value pairs; or headers; in response to finding the script construct within the*
16 *particular HTML element, generating an error event and logging the error event for*
17 *administrative review; wherein the error event is logged for administrative review*
18 *(Razmov, fig. 3; sect. 4, 4.1; Cert, pg. 1/9, "Mitigation Summary" - herein the prior art*
19 *enables for all input elements to be examined for script constructs and logging errors).*

20
21 Regarding claim 43, the combination enables:

encoding user input to render the script construct inert (Cert, pg. 2/9, "Encoding Dynamic Output Elements").

Regarding claims 44 and 45, they comprise essentially similar limitations, and they are rejected, at least, for the same reasons. Furthermore, the combination enables for client requests to result from malicious embedded links (Cert, pg. 2/8, "Malicious code sent...").

Response to Arguments

Applicant's arguments with respect to claims 30 – 45 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

1 A shortened statutory period for reply to this final action is set to expire THREE
2 MONTHS from the mailing date of this action. In the event a first reply is filed within
3 TWO MONTHS of the mailing date of this final action and the advisory action is not
4 mailed until after the end of the THREE-MONTH shortened statutory period, then the
5 shortened statutory period will expire on the date the advisory action is mailed, and any
6 extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
7 the advisory action. In no event, however, will the statutory period for reply expire later
8 than SIX MONTHS from the date of this final action.

9 Any inquiry concerning this communication or earlier communications from the
10 examiner should be directed to Jeffery Williams whose telephone number is (571) 272-
11 7965. The examiner can normally be reached on 8:30-5:00.

12 If attempts to reach the examiner by telephone are unsuccessful, the examiner's
13 supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone
14 number for the organization where this application or proceeding is assigned is (703)
15 872-9306.

1 Information regarding the status of an application may be obtained from the
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9 system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10
11 J. Williams

12 AU: 2137

13
14 /Emmanuel L. Moise/

15 Supervisory Patent Examiner, Art Unit 2137